WHAT IS CLAIMED IS:

1. A system for transmitting and receiving utility meter data via a power line, said system comprising:

a plurality of utility meters adapted to measure utility usage of respective customers and to provide utility meter data based on said usage;

a power line extending between said customers so as to form a local area network;

a plurality of transceivers, each of said transceivers coupled to a corresponding utility meter and to said power line, said transceivers adapted to receive utility meter data provided by said utility meters and to transmit said utility meter data over said power line;

said transceiver including a receiver, said receiver adapted to receive said utility meter data from said power line, said receiver including at least one narrow band pass filter for filtering signals on said power line.

2. The system recited in claim 1 wherein said narrow band pass filter has a pass band of less than about 10% of the center frequency of said band pass filter.

3. The system recited in Claim 1 wherein said narrow band bass filter has a pass band of less than about 1% of the center frequency of said band pass filter.

4. The system recited in claim 1 wherein the center frequency of said band pass filter is selectable.

5. The system recited in claim 4 wherein the center frequency of said band pass filter is selectable between about 10KHz and about 100KHz.

6. The system recited in claim 1 wherein said receiver is adapted to monitor said power line for the presence of radio frequency transmissions.

7. The system recited in claim 1 wherein said receiver is adapted to detect utility meter data being transmitted over said power line.

8. The transmitter of claim 8 wherein said transceiver includes a transmitter adapted to transmit data utilizing said clear frequencies identified by said receiver.

9. The system of claim 1 wherein said transceiver is a Frequency Shift Keyed (FSK) transceiver.

10. A transceiver for transmitting and receiving utility meter data by means of a power line, said transmitter comprising:

a transmitter configured to transmit utility meter data over said power line;

a receiver configured to receive utility meter data over said power line;

said receiver including a narrow band pass filter configured to pass narrow band signals from said power line therethrough.

11. The transceiver as recited in claim 10 adapted to detect the presence of radio frequency transmissions comprising customer utility meter data.

12. The system as recited in claim 1 wherein said utility meters are selected from the group including a electric utility meter, a gas utility meter, and a water utility meter.

13. The system as recited in claim 2, wherein said receiver is adapted to communicate said utility meter data via said local area network to a central database.

14. The system as recited in claim 2, wherein said receiver is adapted to communicate the utility meter data from each respective utility meter within said local area network to a remote interrogator.

15. A method of communicating data over a power line comprising the steps of:

scanning said power line to identify clear frequency bands;

transmitting said data utilizing said clear frequency bands.

16. The method of claim 15 wherein the step of scanning includes the step of selecting successive passbands of a selectable band pass filter such that said band pass filter passes selected frequency bands to a receiver;

determining and storing noise levels corresponding to said passed selected frequency bands;

selecting a clear frequency band based upon said stored noise levels.

17. The method of claim 15 wherein said data is utility meter data.

18. The method of claim 15 wherein said transmitting step is accomplished using a frequency shift keying (FSK) modulation technique.

19. A method of receiving data from a power line comprising the steps of:

coupling said power line to a receiver by means of a selectable band pass filter;

scanning said power line to identify at least one frequency band by which a signal including said data is being transmitted via said power line; and

setting the passband of said selectable band pass filter to include the frequency band identified in the previous step.

20. The method of claim 19 wherein the step of scanning includes the steps of:

selecting successive passbands of said selectable band pass filter such that said band pass filter passes selected frequency bands to said receiver;

determining, for each successive passed frequency band, if a signal including said data is being transmitted via said passed frequency band.

21. An amplitude modulated communications module coupled to a utility meter and coupled to an external computer, said communications module comprising:

a power amplifier, said power amplifier adapted to generate a data signal;

a voltage controlled oscillator coupled to the external computer, wherein said voltage controlled oscillator is adapted to generate a voltage controlled oscillator frequency signal in correspondence with a frequency code generated by the external computer;

a modulator coupled to said power amplifier and coupled to said voltage controlled oscillator, wherein said modulator is adapted to generate a modulated signal corresponding to said data signal and having a modulation frequency equal to the frequency of said voltage controlled oscillator frequency signal;

a low pass filter coupled to said modulator, wherein said low pass filter is adapted to generate a low pass signal in correspondence with the modulated signal.

22. The communications module as recited in claim 19, wherein said module further comprises a radio frequency antenna coupled to said power amplifier.

23. The communications module as recited in claim 19, wherein said module further comprises a radio frequency amplifier coupled to said voltage controlled oscillator, wherein said radio frequency amplifier is adapted to generate a radio frequency signal for transmission over said antenna.

24. The communications module as recited in claim 19, wherein said module further comprises at least one divider coupled to said power amplifier and adapted to reduce the frequency of said voltage controlled oscillator frequency signal so as to enable the external computer to measure the frequency of said voltage controlled oscillator frequency signal.

25. The communications module as recited in claim 22, wherein said module further comprises a level detector coupled to said low frequency amplifier and adapted to generate a detection signal when the signal generated by said low pass filter is above a predetermined voltage threshold.

26. The communications module as recited in claim 23, wherein said predetermined voltage threshold is about five volts.

27. The communications module as recited in claim 24, wherein said voltage controlled oscillator is controlled by a pseudo random signal so as to generate a spread spectrum voltage control oscillator frequency signal.

28. A power line transceiver utilizing frequency shift keying for communicating utility meter data from a respective building to a remote database comprising:

at least one pair of variable dividers for generating a adjustable center frequency signal and an adjustable non center frequency signal wherein said center frequency signal is greater than said non center frequency signal by a fixed ratio;

a power amplifier coupled to said at least one pair of variable dividers for generating a power amplifier signal having a frequency in correspondence with said center frequency signal and in correspondence with said non center frequency signal; and

at least one pair of adjustable narrow bandpass filters coupled to said power amplifier and adapted to detect said center frequency signal and said non center frequency signal.

29. The power line transceiver as recited in claim 28, wherein said transceiver further comprises at least one pair of variable gain amplifiers coupled to said pair of narrow bandpass filters for adjusting the gain of said pair of narrow band pass filters.

30. The power line transceiver as recited in claim 28, wherein said transceiver further comprises a reference voltage source, wherein said reference voltage source is adapted to generate a reference signal.

31. The power line transceiver as recited in claim 29, wherein said transceiver further comprises a first envelope detector, and a second envelope detector, wherein each envelope detector is coupled to one of said pair of variable gain amplifiers, and wherein said first envelope detector is adapted to generate a first band pass filter signal, and wherein said second envelope detector is adapted to generate a second band pass filter signal.

32. The power line transceiver as recited in claim 29, wherein said transceiver further comprises a gain adjust comparator coupled to each of said first envelope detector, said second envelope detector, and said reference voltage source, wherein said gain adjust comparator is adapted to generate a gain adjust signal when the first band pass signal is greater than the reference signal, and alternatively when said second band pass signal is greater than the reference signal.

33. The power line transceiver as recited in claim 32, wherein said transceiver further comprises a signal quality comparator coupled to each of said first envelope detector, said second envelope detector, and said reference voltage source, wherein said signal quality comparator is adapted to generate a signal quality signal when the first band pass signal and the second band pass signal is greater than the reference signal.

34. The power line transceiver as recited in claim 33, wherein said transceiver further comprises a serial data comparator coupled to each of said first envelope detector and said second envelope detector, wherein said serial data

comparator is adapted to generate a serial data signal which comprises the first band pass signal and the second band pass signal.

35. A narrow band pass narrow band pass filter having electronic switches 52, 54, and 56, wherein switch 56 comprises poles 10, and wherein pole 10 is electrically movable between terminals 38 and 52, and wherein switch 54 comprises pole 13, and wherein pole 13 is electrically moveable between each one of terminals 26, 28, 30, 32, 34, and 36, and wherein switch 52 comprises poles 14 through 17, and wherein poles 14 through 17 are electrically movable between terminals 40,42, 44, 46, 48, and 50, said switching capacitor narrow band pass filter comprising:

an effective capacitor being coupled to said pole 10;

an filter input line being coupled to said pole 10, wherein said pole 10 is adapted to couple said effective capacitor to said pole 13;

a plurality of matching capacitors 4 through 9 being coupled respectively to said terminals 26, 28, 30, 32, 34, and 36 and being coupled respectively to said terminals 40, 42, 44, 46, 48, and 50;

said poles 14 through 17 electrically coupled to said terminals 40, 42, 44, 46, 48, and 50 according to a first predetermined sequence and to said terminals 40, 42, 44, 46, 48, and 50 at a predetermined frequency; and

a differential amplifier having a positive terminal and having a negative terminal coupled to said poles 14 through 17 in a second predetermined sequence wherein said poles 14 and 15 are coupled to said positive terminal and said poles 16 and 17 are coupled to said negative terminal for signal summation.

36. The narrow band pass narrow band pass filter as recited in claim 35 wherein said pole 13 is adapted to couple to each one of said terminals 26 through said terminal 36 at the predetermined frequency.

37. The switched capacitor narrow band pass filter as recited in claim 36 wherein said predetermined frequency is a center frequency fc.

38. The switched capacitor narrow band pass filter as recited in claim 36 wherein said first and said second predetermined sequence is set so as to maximize the amplification of the filter input signal by said differential amplifier at the predetermined frequency.

39. The switched capacitor narrow band pass filter as recited in claim 36 wherein said switches are electronic switches.

40. The switched capacitor narrow band pass filter as recited in claim 35 wherein the third harmonic is removed from the narrow band pass filter signal by the operation of said switch 52 with said differential amplifier.

41. The switched capacitor narrow band pass filter as recited in claim 40 wherein the range of signal detection of said filter input signal is adjustable.

42. The switched capacitor narrow band pass filter as recited in claim 41 wherein said effective capacitor has a variable capacitance.

43. A switched capacitor narrow band pass filter having a time varying filter input signal and having a narrow band pass filter signal, said switched capacitor narrow band pass filter comprising:

means for sequentially charging a plurality of matching capacitors with the filter input signal, wherein the voltage across said plurality of matching capacitors is representative of the time varying voltage of said filter input signal;

means for selectively coupling the charge on each one of said plurality of matching capacitors to the terminal of a summing differential amplifier, wherein said summing differential amplifier is adapted to sum the voltage across said plurality of matching capacitors so as to generate the narrow band pass filter signal having a maximized amplification level at a predetermined coupling frequency.

44. The switched capacitor narrow band pass filter as recited in claim 43 wherein said predetermined coupling frequency is center frequency fc.

45. The switched capacitor narrow band pass filter as recited in claim 43 wherein the range of signal detection of said filter input signal is adjustable.

46. The switched capacitor narrow band pass filter as recited in claim 43 wherein said predetermined coupling frequency is independent of the variability of capacitance of each respective matching capacitor.

47. A switched capacitor narrow band pass filter having a time varying filter input signal and having a narrow band pass filter signal, said switched capacitor narrow band pass filter comprising:

a summing operational amplifier;

a first operational amplifier coupled to said summing operational amplifier;

a second operational amplifier coupled to said summing operational amplifier;

a first electronic switch having 6 terminals and having a single pole, wherein said single pole is adapted to sequentially couple the time varying voltage associated with the filter input signal to each one of said plurality of matching capacitors;

a second electronic switch having 6 terminals and having four poles identified as pole one, pole two, pole three, and pole four, wherein said first and said third pole is adapted to couple the charge on each one of said matching capacitors to said first operational amplifier, and wherein said second and said third pole is each adapted to couple the charge on each one of said matching capacitors to said second operational amplifier.

48. The switched capacitor narrow band pass filter as recited in claim 47, wherein said single pole on said first electronic switch is adapted to sequentially couple the filter input signal to each one of said matching capacitors beginning at terminal "N," at a predetermined frequency.

49. The switched capacitor narrow band pass filter as recited in claim 47, wherein said first pole on said second electronic switch is adapted to sequentially couple to each terminal beginning at terminal "N+1" at said predetermined frequency.

50. The switched capacitor narrow band pass filter as recited in claim 47, wherein said second pole on said second electronic switch is adapted to sequentially couple to each terminal beginning at terminal "N+2" at said predetermined frequency.

51. The switched capacitor narrow band pass filter as recited in claim 47, wherein said third pole on said second electronic switch is adapted to sequentially couple to each terminal beginning at terminal "N+4" at said predetermined frequency.

52. The switched capacitor narrow band pass filter as recited in claim 47, wherein said forth pole on said second electronic switch is adapted to sequentially couple to each terminal beginning at terminal "N+5" at said predetermined frequency.

53. The switched capacitor narrow band pass filter as recited in claim 47, wherein said respective terminal "N" of said first switch and said second switch, and each respective terminal thereafter, is electrically the same point.

54. The switched capacitor narrow band pass filter as recited in claim 47 wherein said first electronic switch and said second electronic switch is adapted to sequentially couple said respective signals at said predetermined frequency independently of the variability of capacitance of a said respective matching capacitor.

55. The switched capacitor narrow band pass filter as recited in claim 47 wherein the third harmonic is removed from said narrow band pass filter signal by the operation of said second electronic switch with said differential amplifier.

56. The switched capacitor narrow band pass filter as recited in claim 47 wherein the range of signal detection of said filter input signal is adjustable.